

TABLE 1. MAA immunophenotyping of melanoma vaccine

Antisera	MAA defined (kilodaltons)	Presence of MAA (vaccine batch)			Ref.
		1	2	3	
Mouse monoclonal					
225.28S	240+	+	+	+	23
9.2.27	240+	+	+	+	24
436.G10	122-130	0	NT ^b	NT	25
Nu4B	26, 29, 95, 116	+	NT	NT	17
94	0	NT	NT	NT	15
376.96	94-97	+	+	+	27
118.1	94	0	NT	NT	26
465.12S	0	NT	NT	NT	
MeTBT	69-70				
Rabbit polyclonal					
SB29, SB54	240	+	+	+	
SB29, SB54	150 ^a	+	+	+	
SB29, SB54	140 ^a	+	+	+	
SB29, SB54	120	+	+	+	
SB29, SB54	95	+	+	+	
SB29, SB54	75	+	+	+	

^a Not reactive with SB54.

^b (NT) not tested.

TABLE 2. Effect of detergent and ultracentrifugation on macromolecules, MAAs, and Dr antigens in material shed by melanoma cells

Treatment*	Presence in shed material after ultracentrifugation			
	¹²⁵ I-macromolecules ^b		¹²⁵ I-MAAs ^c	
	cpm	Change ^d (%)	cpm	Change (%)
None	10,362		817	
Ultracentrifugation	6,325	-40	258	-70
NP-40 + ultracentrifugation	8,612	-17	574	-30

* Material shed by radioiodinated melanoma cells was ultracentrifuged in 0.5-ml aliquots at 100,000 g for 90 min, incubated in a final concentration of 0.5% NP-40 for 2 h prior to ultracentrifugation, or not treated. All were subsequently assayed for radioactivity associated with macromolecules, MAAs defined by antiseraum SB29, or Dr antigens. All assays were performed on 0.025-ml aliquots of material in the presence of a final concentration of 0.5% NP-40.

^b Assayed by precipitation with 10% trichloroacetic acid.

^c Assayed by protein A-immune precipitation with specific antisera.

^d From untreated control.

TABLE 3. Surface MAAs expressed by melanomas in various individuals

MAA	Antiserum	Expression of MAA in melanoma*													
		HM31	HM34	HM49	HM54	fHM60	HM80	G361	SK23	SK27	SK28	SK29	SK37	M14	M20
240+	SB29	+	+	-	+	+	-	++	++	++	+	+	+	+	++
	SB54	+	+	-	+	-	++	-	-	-	-	-	-	-	-
225.28S	-	-	-	-	+	++	-	+	++	++	++	++	++	++	++
9.2.27	-	-	-	-	+	++	-	+	++	++	++	++	++	++	++
150	SB29	+	+	+	+	-	-	+	-	-	-	-	-	-	-
140	SB29	++	++	++	++	-	-	++	-	-	-	-	-	-	-
120	SB29	++	++	++	++	-	-	++	-	-	-	-	-	-	-
	SB54	++	++	++	++	-	-	++	-	-	-	-	-	-	-
116	Nu4B	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95-97	SB29	++	++	++	++	++	++	++	++	++	++	++	++	++	++
	SB54	++	++	++	++	++	++	++	++	++	++	++	++	++	++
118.1	-	-	-	-	-	++	++	++	++	++	++	++	++	++	++
75	SB29	+	-	-	-	++	++	++	++	++	++	++	++	++	++
	SB54	+	-	-	-	+	-	-	-	-	-	-	-	-	-
70	Me3TBT	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Assayed by indirect immunoprecipitation with protein A-sepharose.

TABLE 4. *Characteristics of immunized patients*

Patient no.	Age	Sex	Previous treatment other than surgery	Site of metastasis	Duration of metastatic disease prior to immunization (months)	No. of immunization	Current status*	Length of follow-up ^b (months)
1	31	F	BCG, ^c DTIC	Skin, lung	12	10	P	3
2	24	F	None	Lung	2	10	P	8
3	53	M	None	Skin	2	8	P	1
4	58	F	None	Skin	1	12	P	3
5	48	M	None	Skin	2	11	P	3
6	54	M	None	Skin	2	14	P	4
7	58	M	None	Skin, lung	2	10	P	6
8	68	M	None	Skin	36	17	S	14
9	75	F	DTIC,					
			Actinomycin D					
			None	Skin	1	18	R	24
10	46	M	None	Skin	4	8	P	2
15	29	M	None	Skin	4	8	P	2
17	68	M	None	Skin, lung	3	13	P	4
20	38	M	None					

* (P) progression; (S) stable; (R) regression.

^b From onset of immunotherapy.

^c (BCG) bacillus Calmette-Guérin.

TABLE 5. Immunogenicity of melanoma vaccine

Immune response to melanoma*			
Patient no.	Humoral†	Cellular‡	Either
1	++	0	5
2	+	10	+
3	+	0	+
4	0	0	0
5	±	5	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	20	+
10	+	10	+
15	++	0	0
17	NT	NT	+
20	NT	25	0
No. (%) positive:	5 (38%)	4 (31%)	8 (62%)

* (±) 25-49%, (+) 50-100%, and (++) 100%, increase over preimmunization level of melanoma antibodies; (NT) not tested.

† By indirect immunoprecipitation of ^{125}I -melanoma macromolecules.

‡ By skin test to 10 μg vaccine; results represent millimeters of average induration at 24-48 h.

TABLE 6. Antibodies to fetal calf serum proteins in patients immunized to melanoma vaccine

Patient no.	Antibodies to preimmunization	¹²⁵ I-FCS* (2 months postimmunization)
Melanoma		
1	18.3	0.7
2	0.0	0.1
3	0.0	0.0
4	0.1	0.1
5	0.1	0.2
6	0.1	<0.1
7	<0.1	0.1
8	<0.1	<0.1
9	0.6	0.8
10	0.0	0.0
15	0.1	<0.1
17	0.3	0.4
20	0.0	0.0
Normal		
2003	0.0	
2004	0.1	
2005	<0.1	
2006	0.0	
2007	0.0	
2008	0.0	
2009	0.0	
2010	0.1	
2011	0.0	
2012	0.0	
2013	0.0	
ANTI-FCS	68.0	

* Percent of radioactivity associated with ¹²⁵I-FCS specifically immunoprecipitated by serum and protein A-sepharose.